

REACH and CLP: The View of a UK Coatings Manufacturer

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Indestructible Paint Ltd

- Manufacturers of Coatings for Aerospace, Defence and High Performance Use
- Supplies Throughout UK and Worldwide
- Research & Development Facilities in Birmingham
- Products Manufactured in Birmingham

REACH Regulations

- To simplify: to enable safe use of chemicals throughout Europe
- Initial Tranche of Registrations:
November 2010
- Second Tranche: 2013
- Third Tranche: 2018

REACH Regulations

- Initial Registrations covered:
Very High Volume Chemicals
“Dangerous” Chemicals (carcinogenic;
repro-toxic etc)
- Paints are regarded as “mixtures”: as such are
not required to be registered

SVHC'S

- Chemicals can be Proposed as Candidates for SVHC Listing by Member States
- There is a (Limited) Review Time for Other Interested Bodies to Comment
- Dossier to be Raised as per Annex XV
- Once Listed as a SVHC, Chemical Will Be Proposed for Authorisation (Annex XIV; List of Substances Subject to Authorisation))
- Current Understanding: 46 Chemicals Listed as Possible SVHC's (carcinogenic; mutagenic; repro-toxic)
- Current Understanding: ECHA Can Only "Work" on Maximum 8-10 Chemicals per Annum

The Paint Industry

- Current SVHC List: Most Listed Chemicals Not of Major Concern
(Most Chemicals Either Not Used or Already “Substituted”)

HOWEVER:

Current “Live” Examples

**Strontium Chromate Proposed as a
Candidate for SVHC Listing by a
Member State**

N-Methyl Pyrolidone

Strontium Chromate

- Anti-Corrosive Pigment Used in Aerospace and Building (Cladding) Coating Systems
- Consultation Period (45 days) Closed 7 April
- Now Awaiting Decision Whether Annex XV Dossier to be Completed

Strontium Chromate: Some Background

- Main European Manufacturer Produces 3000 tonnes per Annum
- Split 30% Aerospace; 70% Building
- Manufacturer Decided NOT to Register
- “Critical” Anti-Corrosive Pigment for Structural Components and Skins on Aircraft.

Strontium Chromate: Some Background

- SIEF Formed Between: Manufacturer
2 Paint Companies
Major European Air-Frame Manufacturer
- Cost of Registration: €300,000

Strontium Chromate

- If Product is Declared a SVHC
- Almost Certainly Will Be Moved to Annex XIV
- ? Authorisation
- ? Suitable Substitute (Currently NO! for Aerospace, but Possible Substitution in Cladding)
- Concern that if only used for Aerospace, volumes Will Be Too Low to Justify Costs of Dossier/Authorisation etc

NMP

1. Used as solvent/diluent for Polyimide Resin Systems (High Temperature and Corrosion Resistant Resin System)
 - No Viable Substitute (Resin is Very Solvent Intolerable)
 - Withdrawal of Coating Range (Will affect Aerospace and Oil Industries)
2. Used as “Coalescing” Solvent in Water Based Systems

Some Examples

Typical Coating Formulations

Strontium Chromate Primer

Chemical	%
Epoxy Resin	31.30
Strontium Chromate Pigment	20.00
Other Colour Pigments	3.38
Anti-Settlement Agent	1.17
Dispersing Agent	0.50
Extender	17.30
Aromatic Hydrocarbon	15.85
Esters	10.50

Potential At Risk Chemicals

At Risk
At Risk: SVHC Listing
At Risk: Volume/Cost
At Risk: Volume/Cost
At Risk: Solvent Emissions
At Risk: Solvent Emissions

Typical Coating Formulations

Brushing Gloss Finish White Solvent Based

Chemical	%	At Risk
Alkyd Resin	60.00	
Titanium Dioxide	31.00	?
Aliphatic Hydrocarbon	6.50	
Driers	2.10	*
Anti-Settlement Agent	0.20	
Anti-Skin Agent	0.20	*

Brushing Gloss Finish White Water Based

Chemical	%	At Risk
Alkyd Resin	60.00	
Titanium Dioxide	31.00	?
Water	5.00	
Coalescing Solvent (NMP)	1.50	*
Driers (Cobalt salts)	2.10	**
Anti-Settlement Agent	0.20	
Anti-Skin Agent	0.20	*

REACH:

Probable Effects on the Paint Industry

- In Future More Chemicals Used in Paints Will Be Declared as Candidates as SVHC's
- In Addition, In a Majority of Cases it is Probable Volumes Used Across the Industry Will Not Warrant The Costs of:

Registration

Production of a Dossier

Testing

Authorisation

REACH: Possible Supply Chain Effects Aerospace Industry

Raw Material Mnfr → Coatings Mnfr

Component Mnfr ← Coatings Applicator

Main Part Mnfr → Airframe Mnfr

Passengers ← Airlines



GHS AND CLP

Global Harmonised System

**TO GIVE A UNIVERSAL SYSTEM OF CHEMICAL
LABELLING AND SAFETY INFORMATION**



Chemical Labelling & Packaging

**A “PLATINUM PLATED”
VERSION OF GHS**

CLP

- Defines a System of Universal Chemical Labelling and Material Safety Data Sheets
- Has Resulted in a Complete Change in the Design and Layout of Packaging Labels
- Has Resulted in a Much More Detailed MSDS System

CLP

- Currently Covers “Single” Chemicals or New Products to Market
- For Paint Manufacturers:
 - a.) Affects Labelling & MSDS Sheets for Raw Materials
 - b.) Affects Labelling & MSDS Sheets for “Single Solvent” Thinners & Reducers

CLP Labels

- Change from Warning Symbols in Orange Rectangles to Red Bordered Diamonds
- Some Changes in the Design of the Warning Symbols
- Ability to Include More Symbols per Label: Easier Understanding of the Associated Risks?

BUT

CLP Labels

- New Label Blank Required
- New Printer Required
- Cost to be Able to Implement System > £10K

CLP MSDS Sheets

- Will Provide More Information About:
- Safe Use of Product
- Transportation of the Product
- Storage of the Product

BUT

CLP MSDS Sheets

- Sheets Can Be Over 100 Pages (Up to 250?)
- Ease of Disseminating Information from Complicated Information ?
- **Risk That Relevant Information Will Be Missed**

ZZZZ

Any Questions?

